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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,877	03/15/2001	Dominic Yip	169.1644	3507

5514 7590 07/02/2004		EXAMINER
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112		KASSA, YOSEF

ART UNIT	PAPER NUMBER
2625	7

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*15 March 2001*</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>5</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shin et al (U.S. Patent 6,389,417), and further in view Ganesh et al (U.S. Patent

5,802,369).

With regard to claim 1, Shin et al discloses retrieving a plurality of previous partial

results from a first or second storage, i.e., database, (see col. 1, lines 35-44); inputting a

current group of adjacent pixels (see col. 1, lines 45-49); computing, i.e., analyzed,

coefficients utilizing said current group of adjacent pixels and said plurality of previous

partial results (see col. 2, lines 1-5); outputting said coefficients (see col. 2, lines 15-21);

and storing a plurality of current partial results in said first storage if current group is not

the last group in the band (see col. 3, lines 44-52).

Shin et al does not explicitly call for a second storage system. However, in the

same field of endeavor, Ganesh et al discloses a communication channels storage

memory (see Fig. 2, item 29). At the time or the invention, it would have been obvious

to incorporate the teaching of Ganesh et al image storage system into Shin et al

system. The motivation for doing so is to store coefficient form modules, which

represent compressed signal.

With regard to claim 2, Shin et al discloses first storage is a local storage (see Fig. 1, item 146).

With regard to claim 3, Shin et al is silent about second storage is a remote storage. However, at the same field of endeavor, Ganesh et al discloses a communication channels storage memory (see Fig 2, item 29). At the time or the invention, it would have been obvious to incorporate the teaching of Ganesh et al image storage system into Shin et al system. The motivation for doing so is to store coefficient form modules, which represent compressed signal.

With regard to claim 4, Shin et al discloses digital image is all original image and said wavelet filtering performs a forward wavelet transform (see col. 7, lines 24-30).

Claim 5 is similarly analyzed as claim 4.

With regard to claim 6, Shin et al discloses digital image is one or more associated sub-bands of an original image, and said pixels are coefficients and said wavelet filtering performs an inverse wavelet transform (see col. 7, lines 30-34).

With regard to claim 7, Shin et al discloses repeating retrieving, inputting, computing, outputting, and storing steps in sequence a plurality of times (see col. 2, lines 1-17.

With regard to claims 8-11, Shin et al does not discloses expressly calculating accordance with 5/3 forward wavelet transform and 5/3 inverse wavelet transform, and 9/7 forward wavelet transform and 9/7 inverse wavelet transform. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to calculate

accordance with 5/3 forward wavelet transform and 5/3 inverse wavelet transform, and

9/7 forward wavelet transform and 9/7 inverse wavelet transform. Applicant has not

disclosed these limitations provide an advantage, is used for a particular purpose or

solves a stated problem. One of ordinary skill in the art, furthermore, would have

expected Applicant's invention to perform equally well with either the above values

taught by Shin et al or the claimed above values because both values perform the same

function of wavelet transform. Therefore, it would have been obvious to combine to on

one ordinary skill in this art to modify Shin et al with to obtain the invention as specified

in claims 8-11.

   With regard to claim 12, Shen et al discloses plurality of partial results stored in

said local storage comprises a pixel and a coefficient (see col. 1, lines 40-44).

   With regard to claim 13, Shen et al discloses plurality of partial results stored in

said local storage comprises a pixel, intermediate values, and a coefficient (see col. 2,

lines 30-35).

   Claims 14 and 20 are similarly analyzed as claim 1.

Other Prior Art Cited

2.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

   US Patent No. (6,266,450) to Yip et al disclose Encoding method and apparatus.

   US Patent No. (6,668,090) to Joshi et al disclose producing a compressed digital

image...

US Patent No. (5,657,416) to Boon discloses apparatus for further compressing

and recording...

US Patent No. (6,069,712) to Dellert et al disclose image handing method and

system...

US Patent No. (5,859,788) to Hou discloses modulated lapped transform method.

Conclusion

3.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-

5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to

6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone

numbers for the organization where this application or proceeding is assigned is (703)

872-9306 for regular communication and (703) 872-9306 for after Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the customer service office whose telephone number

is (703) 306-5631. The group receptionist number for TC 2600 is (703) 305-4700.

PATENT EXAMINER

Yosef Kassa

06/22/04.

BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600